

VERSION WITH MARKINGS TO SHOW CHANGES

IN THE CLAIMS:

31. (amended) An optical switch, comprising:

an array of actuated mirrors configured for switching an optical beam from an input port to an output port[.];

said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

said optical switch configured for switching said at least one wavelength component from an input port to an output port.

32. (amended) An optical switch, comprising:

an array of actuated mirrors configured for switching an optical beam from at least one input port to at least one output port[.];

said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

said optical switch configured for switching said at least one wavelength component from at least one input port to at least one output port.

33. (amended) An optical switch, comprising:

an array of actuated mirrors configured for switching an optical beam from any input port to any output port[.];

said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

said optical switch configured for switching said at least one wavelength component from any input port to any output port.

34. (amended) An optical switch, comprising:
at least one array of actuated mirrors configured for switching an optical beam from an input port to an output port[.];

said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

said optical switch configured for switching said at least one wavelength component from an input port to an output port.

35. (amended) An optical switch, comprising:
at least one array of actuated mirrors configured for switching an optical beam from at least one input port to at least one output port[.];

said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

said optical switch configured for switching said at least one wavelength component from at least one input port to at least one output port.

36. (amended) An optical switch, comprising:

at least one array of actuated mirrors configured for switching an optical beam from any input port to any output port[.];

said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

said optical switch configured for switching said at least one wavelength component from any input port to any output port.

45. (amended) An optical switch, comprising:

(a) at least one input port;

(b) at least one output port;

(c) an array of actuated mirrors configured for switching an optical beam from an input port to an output port[.];

(d) said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

(e) said optical switch configured for switching said at least one wavelength component from an input port to an output port.

46. (amended) An optical switch, comprising:

(a) at least one input port;

(b) at least one output port; and

(c) an array of actuated mirrors configured for switching an optical beam from at least one said input port to at least one said output port[.];

(d) said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

(e) said optical switch configured for switching said at least one wavelength component from at least one said input port to at least one said output port.

47. (amended) An optical switch, comprising:

(a) at least one input port;

(b) at least one output port; and

(c) an array of actuated mirrors configured for switching an optical beam from any said input port to any said output port[.];

(d) said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

(e) said optical switch configured for switching said at least one wavelength component from any said input port to any said output port.

48. (amended) An optical switch, comprising:

(a) at least one input port;

(b) at least one output port; and

(c) at least one array of actuated mirrors configured for switching an optical

beam from an input port to an output port[.];

(d) said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

(e) said optical switch configured for switching said at least one wavelength component from an input port to an output port.

49. (amended) An optical switch, comprising:

(a) at least one input port;

(b) at least one output port; and

(c) at least one array of actuated mirrors configured for switching an optical beam from at least one said input port to at least one said output port[.];

(d) said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

(e) said optical switch configured for switching said at least one wavelength component from at least one said input port to at least one said output port.

50. (amended) An optical switch, comprising:

(a) at least one input port;

(b) at least one output port; and

(c) at least one array of actuated mirrors configured for switching an optical beam from any said input port to any said output port[.];

(d) said optical switch configured for separating at least one wavelength component in said optical beam from at least one other wavelength component of said optical beam;

(e) said optical switch configured for switching said at least one wavelength component from any said input port to any said output port.

77. (amended) An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) an input array of actuated mirrors;
- (d) an output array of actuated mirrors; and
- (e) at least one imaging component configured for positioning [said] an optical beam onto said input array of actuated mirrors;
- (f) wherein said optical switch is configured for a specific mirror in said input array of actuated mirrors to receive an optical beam from a corresponding one specific input port; and
- (g) wherein said optical switch is further configured for a specific output port to receive an optical beam from a corresponding one specific mirror in said output array of actuated mirrors.

78. (amended) An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;

- (c) a least one input array of actuated mirrors;
- (d) at least one output array of actuated mirrors; and
- (e) at least one imaging component configured for positioning [said] an optical beam onto at least one input array of actuated mirrors;
- (f) wherein said optical switch is configured for a specific mirror in an input array of actuated mirrors to receive an optical beam from a corresponding one specific input port; and
- (g) wherein said optical switch is further configured for a specific output port to receive an optical beam from a corresponding one specific mirror in an output array of actuated mirrors.

79. (amended) An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) a least one input array of actuated mirrors;
- (d) at least one output array of actuated mirrors; and
- (e) at least one imaging component configured for positioning [said] an optical beam onto at least one input array of actuated mirrors;
- (f) wherein said optical switch is configured for a specific mirror in at least one input array of actuated mirrors to receive an optical beam from a corresponding one specific input port; and
- (g) wherein said optical switch is further configured for a specific output port to receive an optical beam from a corresponding one specific mirror in at least one

output array of actuated mirrors.

86. (amended) An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) an input array of actuated mirrors;
- (d) an output array of actuated mirrors; and
- (e) at least one imaging component configured for positioning [said] an optical beam onto said input array of actuated mirrors;
- (f) wherein each mirror in said input array of actuated mirrors is configured to steer an incident optical beam to any, but not more than one for a given setting, mirror in said output array of actuated mirrors; and
- (g) wherein each output mirror in said output array of actuated mirrors can be set to receive an optical beam from any, but not more than one for a given setting, mirror in said input array of actuated mirrors.

87. (amended) An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) at least one input array of actuated mirrors;
- (d) at least one output array of actuated mirrors; and
- (e) at least one imaging component configured for positioning [said] an optical beam onto at least one input array of actuated mirrors;

(f) wherein each mirror in an input array of actuated mirrors is configured to steer an incident optical beam to any, but not more than one for a given setting, mirror in an output array of actuated mirrors; and

(g) wherein each output mirror in an output array of actuated mirrors can be set to receive an optical beam from any, but not more than one for a given setting, mirror in an input array of actuated mirrors.

88. (amended) An optical switch, comprising:

- (a) at least one input port;
- (b) at least one output port;
- (c) at least one input array of actuated mirrors;
- (d) at least one output array of actuated mirrors; and
- (e) at least one imaging component configured for positioning [said] an optical beam onto at least one input array of actuated mirrors;

(f) wherein each mirror in at least one input array of actuated mirrors is configured to steer an incident optical beam to any, but not more than one for a given setting, mirror in at least one output array of actuated mirrors; and

(g) wherein each output mirror in at least one output array of actuated mirrors can be set to receive an optical beam from any, but not more than one for a given setting, mirror in at least one input array of actuated mirrors.

REMARKS

Reconsideration of this application is respectfully requested in view of the foregoing amendments and discussion presented herein.

1. Objection to Abstract.

The Examiner is respectfully requested to reconsider the prior request to revise the abstract in view of the amendments herein.

2. Rejection of Claims 77-94 under 35 U.S.C. §112, second paragraph.

Claims 77-79 and 86-88 have been amended to overcome the rejection under §112, second paragraph, by changing "said optical beam" to --an optical beam-- as suggested by the Examiner. These changes were made for reasons of clarification and not patentability.

3. Rejection of Claims 31-58 under 35 U.S.C. §102(b) and §103(a).

(a) Claims 31-36, 41-50 and 55-58 were rejected under 35 U.S.C. § 102(b) as being anticipated by Wu (U.S. No. 5,581,643).

(b) Claims 37-40 and 51-54 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combined teachings of Wu and Welch et al. (U.S. No. 5,255,332).

Of the rejected claims, Claims 31-36 and 45-50 are independent. In response, and without prejudice or disclaimer, the Applicant has amended each of the independent Claims 31-36 and 45-50, to recite an optical switch that is configured for separating at least one wavelength component in an optical beam from at least one other wavelength component of the optical beam and independently switching that wavelength component from at least one input port to at least one output port

(variations thereof, e.g., an-an, an-any, any-any, etc., are stated in the various independent claims). None of the cited references, singly or in combination, teach, suggest or provide motivation or incentive for an invention as so claimed.

4. Rejection of Claims 59-76 under 35 U.S.C. §102(e) and §103(a).

(a) Claims 59-64 and 69-76 were rejected under 35 U.S.C. §102(e) as being anticipated by Nguyen et al. (U.S. No. 6,212,309).

(b) Claims 65-68 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the combined teachings of Nguyen and Welch et al..

In response, the Applicant respectfully calls to the attention of the Examiner that the Applicant's effective filing date is approximately one-year prior to the effective filing date of Nguyen as evidenced by Applicant's U.S. provisional application serial number 60/038,172 filed on February 13, 1997, from which this application claims priority. Since the subject matter of Claims 59-76 is described that application, the Applicant is entitled to domestic priority over Nguyen.

Therefore, Nguyen is not a proper reference and the Applicant respectfully requests that Nguyen be removed as a reference. Once Nguyen is removed as a reference, Claims 59-76 will be in a condition for allowance.

Removal of Nguyen as a reference obviates the need for the Applicant to address the content and applicability of Nguyen and Welch et al. as applied to Claims 65-68.

Applicant's response is without prejudice or disclaimer, and Applicant does not concede the stated grounds for rejection.

5. Rejection of Claims 31-94 for obviousness-type double patenting.

Claims 31-94 were rejected under the judicially created doctrine of obviousness-type double patenting in view of Claims 31-64 of copending application serial no. 09/849,096. In response, the Applicant is submitting herewith a Terminal Disclaimer to obviate this rejection.

6. Rejection of Claim 83 for obviousness-type double patenting.

Claim 83 was also rejected under the judicially created doctrine of obviousness-type double patenting in view of Claims 1, 3 and 4 of U.S. Patent No. 6,289,145. In response, the Applicant is submitting herewith a Terminal Disclaimer to obviate this rejection.

7. Conclusion.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

The Applicant also respectfully requests a telephone interview with the Examiner in the event that there are questions regarding this response, or if the next action on the merits is not an allowance of all pending claims.

Date: 2/5/02

Respectfully submitted,


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